<400> 3

SEQUENCE LISTING

```
< 10> Kaempfer, Raymond
      Arad, Gila
<120\(\) BROAD SPECTRUM PYROGENIC EXOTOXINS ANTAGONISTS VACCINES
<130> A31967-PCT-USA-A 066031.0102
<140> 09/150,947
<141> 19\( 8-09-10
<150> PCT/\(\)\(\)\L97/00438
<151> 1997-\12-30
<150> ISRAEL \19938
<151> 1996-12-30
<160> 18
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 12
<212> PRT
<213> Staphylococcus auxeus
<400> 1
Thr Asn Lys Lys Val Tha Ala Gln Glu Leu Asp
<210> 2
<211> 12
<212> PRT
<213> Staphylococcus aureus
<400> 2
Tyr Asn Lys Lys Lys Ala Thr Val Gln Glà Leu Asp
<210> 3
<211> 10
<212> PRT
<213> Staphylococcus aureus
```

```
Lys Lys Lys Ala Thr Val Gln Glu Leu Asp
<210> 4
<211> 10
<212> PRT
<213> Staphylococcus aureus
<400> 4
Lys Lys Lys Val Thr Ala Gln Glu Leu Asp
<210> 5
<211> 13
<212> PRT
<213> Staphylococcus aureus
<220>
<221> LIPID
<222> (1)...(1)
<223> N-lauryl cysteine residue
<400> 5
Cys Thr Asn Lys Lys Val Thr Ala Gln Glu Leu Asp
<210> 6
<211> 13
<212> PRT
<213> Staphylococcus aureus
<220>
<221> LIPID
<222> (1)...(1)
<223> N-lauryl cysteine residue
<400> 6
Cys Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp
<210> 7
<211> 24
<212> PRT
<213> Staphylococcus aureus
<400> 7
```

RECEIVED

FEB 1 0 2003

TECH CENTER 1600/2900

```
Tyr Asn Lys Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys
Lys Ala Thr Val Gln Glu Leu Asp
            20
<210> 8
<211> 36
<212> PRT
<213> Staphylococcus aureus
<400> 8
Tyr Asn Lys Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys
Lys Ala Thr Val Gln Glu Leu Asp Tyr Asn Lys Lys Lys Ala Thr Val
                                 25
Gln Glu Leu Asp
        35
<210> 9
<211> 14
<212> PRT
<213> Staphylococcus aureus
<220>
<221> DISULFID
<222> (1)...(1)
<221> DISULFID
<222> (14)...(14)
<400> 9
Cys Tyr Asn Lys Lys Lys Ala Thr Val Gln Glu Leu Asp Cys
<210> 10
<211> 14
<212> PRT
<213> Staphylococcus aureus
<220>
<221> MOD RES
<222> (1)...(1)
<223> D-alanine
<221> MOD RES
<222> (14)...(14)
```

<223> D-alanine

```
<400> 10
Ala Tyr Asn Lys Lys Ala Thr Val Gln Glu Leu Asp Ala
<210> 11
<211> 13
<212> PRT
<213> Staphylococcus aureus
<220>
<221> ACETYLATION
<222> (1)...(1)
<221> MOD RES
<222> (13)...(13)
<223> D-alanine
<400> 11
Tyr Asn Lys Lys Ala Thr Val Gln Glu Leu Asp Ala
<210> 12
<211> 239
<212> PRT
<213> Staphylococcus aureus
<400> 12
Glu Ser Gln Pro Asp Pro Lys Pro Asp Glu Leu His Lys Ser Ser Lys
Phe Thr Gly Leu Met Glu Asn Met Lys Val Leu Tyr Asp Asp Asn His
                                25
Val Ser Ala Ile Asn Val Lys Ser Ile Asp Gln Phe Leu Tyr Phe Asp
                            40
Leu Ile Tyr Ser Ile Lys Asp Thr Lys Leu Gly Asn Tyr Asp Asn Val
Arg Val Glu Phe Lys Asn Lys Asp Leu Ala Asp Lys Tyr Lys Asp Lys
Tyr Val Asp Val Phe Gly Ala Asn Tyr Tyr Tyr Gln Cys Tyr Phe Ser
Lys Lys Thr Asn Asp Ile Asn Ser His Glu Thr Asp Lys Arg Lys Thr
            100
                                105
                                                     110
Cys Met Tyr Gly Gly Val Thr Glu His Asn Gly Asn Gln Leu Asp Lys
        115
                            120
Tyr Arg Ser Ile Thr Val Arg Val Phe Glu Asp Gly Lys Asn Leu Leu
                        135
Ser Phe Asp Val Gln Thr Asn Lys Lys Lys Val Thr Ala Gln Glu Leu
145
                    150
                                         155
                                                             160
```

```
Asp Tyr Leu Thr Arg His Tyr Leu Val Lys Asn Lys Lys Leu Tyr Glu
                                     170
                165
Phe Asn Asn Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn
                                 185
Glu Asn Ser Phe Trp Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
                             200
Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Met Val Asp
                         215
Ser Lys Asp Val Lys Ile Glu Val Tyr Leu Thr Thr Lys Lys Lys
                     230
<210> 13
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Consensus sequence
<221> UNSURE
<222> (2)...(4)
<223> Any amino acid
<221> UNSURE
<222> (6)...(6)
<223> Any amino acid
<221> UNSURE
<222> (9)...(9)
<223> Any amino acid
<400> 13
Lys Xaa Xaa Xaa Thr Xaa Gln Glu Xaa Asp
<210> 14
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Consensus sequence
<221> UNSURE
<222> (3)...(8)
<223> Any amino acid
<400> 14
```

205

220

```
Lys Lys Xaa Xaa Xaa Xaa Xaa Leu Asp
<210> 15
<211> 10
<212> PRT
<213> Artificial Sequence
<220>
<223> Consensus sequence
<221> UNSURE
<222> (1)...(1)
<223> Any charged amino acid
<221> UNSURE
<222> (2)...(3)
<223> Any amino acid
<221> UNSURE
<222> (4)...(4)
<223> Any hydrophobic amino acid
<221> UNSURE
<222> (5)...(5)
<223> Any amino acid
<221> UNSURE
<222> (6)...(6)
<223> Any hydrophobic amino acid
<221> UNSURE
<222> (7)...(8)
<223> Any polar amino acid
<221> UNSURE
<222> (9)...(9)
<223> Any hydrophobic amino acid
<400> 15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp
1
                 5
                                     10
<210> 16
<211> 12
<212> PRT
```

<213> Artificial Sequence

```
<220>
<223> Consensus sequence
<221> UNSURE
<222> (1)...(2)
<223> Any amino acid
<221> UNSURE
<222> (4)...(6)
<223> Any amino acid
<221> UNSURE
<222> (8)...(8)
<223> Any amino acid
<221> UNSURE
<222> (11)...(11)
<223> Any amino acid
<400> 16
Xaa Xaa Lys Xaa Xaa Xaa Thr Xaa Gln Glu Xaa Asp
<210> 17
<211> 12
<212> PRT
<213> Artificial Sequence
<220>
<223> Consensus sequence
<221> UNSURE
<222> (1)...(2)
<223> Any amino acid
<221> UNSURE
<222> (5)...(10)
<223> Any amino acid
<400> 17
Xaa Xaa Lys Lys Xaa Xaa Xaa Xaa Xaa Leu Asp
<210> 18
<211> 12
<212> PRT
<213> Artificial Sequence
```

1

```
<221> UNSURE
<222> (1)...(2)
<223> Any amino acid
<220>
<223> Consensus sequence
<221> UNSURE
<222> (3)...(3)
<223> Any charged amino acid
<221> UNSURE
<222> (4)...(5)
<223> Any amino acid
<221> UNSURE
<222> (6)...(6)
<223> Any hydrophobic amino acid
<221> UNSURE
<222> (7)...(7)
<223> Any amino acid
<221> UNSURE
<222> (8)...(8)
<223> Any hydrophobic amino acid
<221> UNSURE
<222> (9)...(10)
<223> Any polar amino acid
<221> UNSURE
<222> (11)...(11)
<223> Any hydrophobic amino acid
<400> 18
```

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp

10